EA RESPONSES TO EPA AND NMED QUESTIONS/COMMENTS
SAMPLING AND ANALYSIS PLAN, REVISION 00
REMEDIAL INVESTIGATION
GRIGGS AND WALNUT GROUND WATER PLUME SITE

U.S. Environmental Protection Agency (EPA) Questions/Comments to
Sampling and Analysis Plan (SAP), Revision 00

EPA Question/Comment No. 1:

Section 1.0 – Project Description and Management, page 1-1, second paragraph:

Please revise the paragraph to state that the data are to be collected to complete a Remedial Investigation (RI) focused on assessing the potential for indoor air vapor intrusion and support future EPA decision-making on appropriate response actions if warranted.

> **EA Response:** EA has revised the paragraph with the following per the EPA comment above: "…collect sufficient data necessary to complete a remedial investigation (RI) focused on assessing the potential for indoor air vapor intrusion and support future EPA decision-making on appropriate response actions if warranted."

EPA Question/Comment No. 2:

Section 1.1.3 – Previous Investigations, page 1-3, paragraph 5:

Please include a discussion at the end of paragraph 5 that EPA selected no response action for residential indoor air vapor intrusion in the 2007 Record of Decision because the HHRA used the 1991 Johnson and Ettinger analytical model which tended to overestimate risk by an order of magnitude and therefore, EPA determined that no action was needed. However, EPA now has a greater recognition about the complexities of vapor intrusion and the limitations of such modeling, as well as new toxicological data and guidance on vapor intrusion. Therefore, EPA decided that such condition needed to be reassessed.

> **EA Response:** EA has included the following per the comment above: "EPA selected the no response action for residential indoor air vapor intrusion in the 2007 ROD because the HHRA used the 1991 Johnson and Ettinger analytical model which tended to overestimate risk by an order of magnitude and therefore, EPA determined that no action was needed. However, EPA now has a greater recognition about the complexities of vapor intrusion and the limitations of such modeling, as well as new toxicological data and guidance on vapor intrusion. Therefore, EPA decided that such condition needed to be reassessed."

EPA Question/Comment No. 3:

Section 1.1.4 – Preliminary Conceptual Site Model, third full paragraph:

Please revise the paragraph to include a discussion of the primary PCE Release Area across the street from the targeted residential development. There is mention of a vacant property, but nothing on its location.

EA Response: EA has incorporated the following sentences per the EPA comment above:
"The area to be sampled during this RI is primarily a residential development located east of the intersection of North Walnut Street and East Hadley Avenue, and vacant properties at the northwest and southwest corners of North Walnut Street and East Hadley Avenue (Figure 1-2)."

"PCE concentrations detected in eight exterior soil gas samples collected at the vacant property west of the residential development in 2002 exceeded the $1x10^{-6}$ risk level by approximately an order of magnitude. A commercial/industrial worker scenario is included in the event commercial developments are constructed on the vacant properties. A future resident scenario will be included to assess the risk for future residential land use."

EPA Question/Comment No. 4:

1.3.1 – Data Quality Objectives, page 1-10:

EPA is not planning on performing a Feasibility Study, but will likely conduct necessary response actions under the Removal Program. Please revise the paragraph accordingly.

EA Response: EA has incorporated the following per the EPA comment above:
"necessary response actions under the Removal Program"

EPA Question/Comment No. 5:

1.3.2.1 – Describe the Problem, page 1-11:

Specify that in addition to the residential development, additional sampling is required in the vacant city lots across the street from the development to assess the risk for a residential future land use scenario.

EA Response: EA has incorporated the following per the EPA comment above: "Based upon the reassessment of the vapor intrusion pathway, PCE concentrations in 2002 and 2005 soil gas samples present an excess lifetime carcinogenic risk of greater than 1×10^{-6}. The level of risk requires: (1) additional sampling for the residential development and further investigation of the vapor intrusion pathway and (2) additional sampling in the vacant properties west of the residential development to assess the risk for a residential future land use scenario.

New Mexico Environment Department (NMED)
Questions/Comments to SAP, Revision 00

NMED Question/Comment No. 1:

Section 1.1.1 – Purpose of the Investigation: "a RI *focused on vapor intrusion related data*"

A Ortelli, NMED: "active soil gas sampling"

EA Response: After speaking with EPA, EA has left the sentence as written since this sentence is talking about the entire investigation process and not just Phase 1 with active soil gas sampling. No changes were made to the document.

NMED Question/Comment No. 2:

Section 1.1.1 – Purpose of the Investigation: "develop the minimal amount of *vapor intrusion related*"

A Ortelli, NMED: "acquire soil gas sampling"

EA Response: After speaking to EPA, EA has adjusted to the sentence to reflect the following: "One goal is to collect the data necessary to determine if…"

NMED Question/Comment No. 3:

Section 1.3.6.2 – Action Level Decision Rule

A Ortelli, NMED: Since the VI investigation is proposed as a phased approach, please revise the decision rules as follows:

If COPC concentrations in soil gas samples (collected at the locations proposed in Figure 1-2) are less than the project action limits (i.e., RSLs or VISLs listed in Table 2-3), then additional sampling is not warranted.

If COPC concentrations in the Phase 1 soil gas samples are greater than the project action limits (i.e., RSL or VISLs listed in Table 2-3), then sub-slab and indoor air sampling is recommended 9at locations depicted on Figure 1-2).

EA Response: After EPA and EA consideration of the suggested decision rules revision, no changes were made to the document due to the rules application to the entire project and not just the Phase 1 activities.

NMED Question/Comment No. 4:

Section 2.1 – Sampling Process Design, Active Soil Gas Sampling bullet

M. Kieling, NMED: NMED has reviewed the proposed sample number and placement as shown on the Map, Figure 1-2. NMED also reviewed the Soil Gas Results from the November 2006 Remedial Action Contract EP-W-06-021. The placement appears to bound the residential location adequately as well as cover the release area NW/SW of the intersection of North Walnut and East Hadley. One concern is the sample points for exterior soil gas near the residences be selected as close to the home as physically possible.

EA Response: EA intends to get as near to the residential structure as physically possible, pending site and subsurface conditions, when installing sampling points. No changes to the document have been made.

NMED Question/Comment No. 5:

Table 2-3. Reference Limits and Project Action Limits for Soil Gas, Sub-slab, and Indoor Air

- Indoor Air – Project Action Limits
- Soil Gas and Sub-Slab – Project Action Limits

M. Kieling, NMED: NMED recognizes that EA is proposing the most conservative screening criteria. For this soil gas/indoor air investigation we believe that this conservative approach is reasonable for this site at this stage.

EA Response: Comment noted, no changes made to the document.

NMED Question/Comment No. 6:

Section 1. Soil Gas Point Installation, Appendix C

- Sufficient time will then be provided for bentonite to set (approximately 24 hours).

M. Kieling, NMED: 24 hours is the minimum, NMED would prefer 48 hours prior to sample collection.

EA Response: EA scoped a minimum of 24 hours, and EPA agreed with this approach. No changes have been made to the document.

NMED Question/Comment No. 7:

Section 2. Soil Gas Point Sampling, Appendix C

- At least 24 hours after the installation of the temporary soil gas points, 2–3 implant volumes (i.e., the volume of the sample probe and tube) will be purged prior to collecting the samples to ensure that representative samples are collected.

M. Kieling, NMED: Collection 24 hours after installation is acceptable as a minimum, however, 48 hours would allow for more equilibration after installation disturbance.

EA Response: EA scoped a minimum of 24 hours, and EPA agreed with this approach. No changes have been made to the document.

NMED Question/Comment No. 8:

Section 2.1 – Sampling Process Design, Active Soil Gas Sampling bullet

M. Kieling, NMED: NMED has reviewed the proposed sample number and placement as shown on the Map, Figure 1-2. NMED also reviewed the Soil Gas Results from the November 2006 Remedial Action Contract EP-W-06-021. The placement appears to bound the residential location adequately as well as cover the release area NW/SW of the intersection of North Walnut and East Hadley. One concern is the sample points for exterior soil gas near the residences be selected as close to the home as physically possible.

EA Response: This appears to be a duplicate comment from above; however, EA intends to get as near to the residential structure as physically possible, pending site and subsurface conditions, when installing sampling points. No changes have been made to the document.